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**Municipality/Organization:** Orleans, MA

**EPA NPDES Permit Number:** MAR041146

**MADEP Transmittal Number:** W-035744

**Annual Report Number  
& Reporting Period:**

No. 1: March 03-March 04

MAY 05 2005

MUNICIPAL ASSISTANCE UNIT

1st Year

## NPDES PII Small MS4 General Permit Annual Report

### Part I. General Information

**Contact Person:** Robert L. Bersin, P.E.

**Title:** Manager, Highway Department

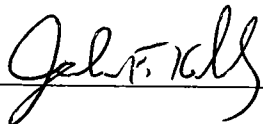
**Telephone #:** 508-240-3790

**Email:** rbersin@town.orleans.ma.us

### Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Signature:**



**Printed Name:** John F. Kelly

**Title:** Town Administrator

**Date:** April 6, 2005

## **Part II. Self-Assessment**

The Town of Orleans has completed the required self-assessment and have determined that our municipality is in compliance with all permit conditions, except for the following provisions:

*Part II.F      Failed to submit annual report on or before May 1, 2004.*

### Part III. Summary of Minimum Control Measures

#### 1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) -- Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities -- Permit Year 2
A.1	Develop and Broadcast Via PA CATV Storm Water Video	Robert L. Bersin, P.E., Highway Manager	One per year – in conjunction with County Group	No progress	County Group to produce 60 second radio broadcast in lieu of CATV broadcast
Revised					
A.2	Household Hazardous Waste Control	Robert L. Bersin, P.E., Highway Manager	Annual HHW Collection	Collection day held September 18, 2004	Annual collection day
Revised					
A.3	Education Flyers	Robert L. Bersin, P.E., Highway Manager	Distribute 2 per year at Transfer Station	Flyers distributed at Transfer Station	Continue flyer distribution
Revised					
A.4	Web Page Information	Robert L. Bersin, P.E. & Peter Vandycck, IT Coordinator	Short Article – one per year	Highway Department web page not yet fully developed by Town.	Continue development of web page. Once developed, provide short annual article.
Revised					
Revised					

#### 1a. Additions


## 2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
B 1 Revised	Water Quality Monitoring Program	Water Quality Task Force	Ongoing for past ten years	Water quality monitoring has been performed over the year. Task force meets once per month.	Continue monitoring water quality
B 2 Revised	Estuaries Program	Director of Planning and Development	Ongoing for past 2 years of 3 year study	Ongoing sampling and study.	Anticipate water quality reports for all town estuaries by middle of 2006.
Revised					
Revised					
Revised					
Revised					
Revised					

### 2a. Additions


### 3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
C.1	Storm Water System Mapping and Database Development	Robert L. Bersin, P.E., Highway Manager & Americorps	Comprehensive town-wide survey by year 2 – as funding allows	Mapping by Americorps volunteers is complete. Work on database is ongoing – approximately 25% of data has been included in the database.	Apply for MA Office of Coastal Zone Management grant money to assist in database development. Complete database development.
Revised					
C.2	Review Existing By-Laws	Director of Planning and Development	Review existing by-laws and adopt storm water ordinance FY06	No progress.	Draft storm water ordinances and sedimentation/erosion by-laws. Prepare for Town Meeting in Spring 2006.
Revised					
C.3	Identify and Document Illicit Connections	Robert L. Bersin, P.E., Highway Manager	Review C.1 results, finalize database by Year 4	Ongoing, as database is also in development stage. Two illicit connections have been identified and remediated.	Continue review of mapping results.
Revised					
Revised					
Revised					

#### 3a. Additions


#### 4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
D.1	Review Existing By-Laws	Director of Planning and Development	Review existing by-laws and adopt construction ordinance FY 06	Drafted ordinance for control of construction-related stormwater runoff.	Anticipate adoption of ordinance by selectmen by the end of the 2004 calendar year.
Revised					
D.2	Propose amendments and articles at Town Meeting	Director of Planning and Development	Spring 06	Drafted ordinance.	Anticipate adoption of ordinance by selectmen by the end of the 2004 calendar year.
Revised					
Revised					
Revised					
Revised					

#### 4a. Additions


## 5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
E.1	Review Existing By-Laws	George Meservy, Director of Planning and Development	Review existing by-laws and adopt Runoff Control Ordinance FY06	No progress.	Develop runoff control ordinance to prevent runoff and erosion after construction projects. Prepare for Town Meeting in Spring 2006.
Revised					
E.2	Propose amendments and articles at Town Meeting	George Meservy, Director of Planning and Development	Spring 06	No progress.	Prepare for Town Meeting in Spring 2006.
Revised					
Revised					
Revised					

### 5a. Additions


## 6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
F.1	Street Sweeping	Robert L. Bersin, P.E., Highway Manager	Annual winter cleanup and as-necessary	All streets were swept at least once, many more than once during the year. 894 tons of sand were collected during FY04.	Annual street sweeping
Revised					
F.2	Catch Basin Cleaning	Robert L. Bersin, P.E., Highway Manager	Clean all basins in town on yearly rotating schedule	All basins received an annual cleaning. 250 tons of catch basin cleanings were collected during FY04.	Annual catch basin cleaning
Revised					
F.3	Develop Drainage System Improvement Plan	Robert L. Bersin, P.E., Highway Manager	Prepare Capital Plan Article for FY06	Ongoing. \$2.5-million article is currently being developed.	Continue preparation for FY06.
Revised					
F.4	Propose Amendments and Articles at Town Meeting	Robert L. Bersin, P.E., Highway Manager	Spring 06	No progress.	Prepare for Town Meeting in Spring 2006.
Revised					

### 6a. Additions




**7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>**

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 1 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 2
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

**7a. Additions**


**7b. WLA Assessment**

**Part IV. Summary of Information Collected and Analyzed**

No storm water sampling has been completed.  
Current storm water assessment of Town Cove watershed will recommend sampling protocol.  
Beach monitoring performed by Town of Orleans Health Department.

**Part V. Program Outputs & Accomplishments (OPTIONAL)**

**Programmatic**

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

**Education, Involvement, and Training**

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

## Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination				
▪ Erosion & Sediment Control				
▪ Post-Development Stormwater Management				

## Mapping and Illicit Discharges

Outfall mapping complete	(%)	
Estimated or actual number of outfalls	(#)	
System-Wide mapping complete	(%)	
Mapping method(s)		
▪ Paper/Mylar	(%)	
▪ CADD	(%)	
▪ GIS	(%)	
Outfalls inspected/screened	(# or %)	
Illicit discharges identified	(#)	
Illicit connections removed	(#) (est. gpd)	
% of population on sewer	(%)	
% of population on septic systems	(%)	

## Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and \$)	
Complaints/concerns received from public	(#)	

## Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

## Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	
Total number of structures cleaned	(#)	
Storm drain cleaned	(LF or mi.)	
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		
Cost of screenings disposal	(\$)	
Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	

Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased	(#)	
Vacuum street sweepers specified in contracts	(y/n)	

Reduction in application on public land of: ("N/A" = never used; "100%" = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % CaCl <sub>2</sub> % MgCl <sub>2</sub> % CMA % Kac % KCl % Sand	
Pre-wetting techniques utilized	(y/n)	
Manual control spreaders used	(y/n)	
Automatic or Zero-velocity spreaders used	(y/n)	
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	
Storage shed(s) in design or under construction	(y/n)	